

PDR RID Report

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Section

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Figure Table

Category Name Design-CSS **Actionee** HAIS

Sub Category Bulk data transfer restart

Subject Bulk Data Transfer Restart

Description of Problem or Suggestion:

The design as presented does not address how bulk data transfer will be supported (e.g., transfer of a 1GB file), particularly to accommodate transfer failures. Without such a mechanism, many data may have to be transferred multiple times to successfully transfer a large file.

Originator's Recommendation

Examine techniques for file transfer that can support transfer of a file through multiple sessions (e.g., checksum based ftp, DCE pipes, and distributed file systems), and provide a service that explicitly supports large file transfer.

GSFC Response by:

GSFC Response Date

HAIS Response by: Forman

HAIS Schedule 2/10/95

HAIS R. E. Winston

HAIS Response Date 2/28/95

CSS will provide support for resuming interrupted file transfers under ftp.

The Berkeley Standard Distribution (BSD) version of ftp supports resuming of interrupted file transfers. If the transfer is aborted for any reason before completion, it may be restarted by a simple command (restart or reget) in the next client session. This bypasses

transmitting the portion of the file that was received in the original interrupted session. The restart feature is a simple extension to the ftp protocol that has existed in the BSD version of ftp for over seven years. For this mechanism to work, each of the CSS servers (ftp daemon) also supports this protocol extension. This feature is already incorporated by many vendors in their ftp clients and servers that are shipped with their basic operating system software.

There have been modifications made to ftp by other sites (Sandia Labs, and Lawrence Livermore Labs) to allow for MIT based security - Kerberos authentication, authentication passing, and encryption. These are also released in the public domain and are based on the BSD versions, and therefore also incorporates the re-startable file transfers.

To make use of both the restart and security features we will use the modified BSD ftp client and servers on all ECS hosts. This ftp client will be available as part of the ECS CSS toolkit. The source code is in public domain, so there would be no licensing difficulties using it on any system. The server also supports non-BSD ftp clients, which means that a client that is unaware of the restart extension will also be supported by the server. CSS will provide support in its ftp API for this restart feature and plans to demonstrate these features during EP6 (Fall 1995).

Status Closed

Date Closed 3/8/95

Sponsor desJardins

Attachment if any
